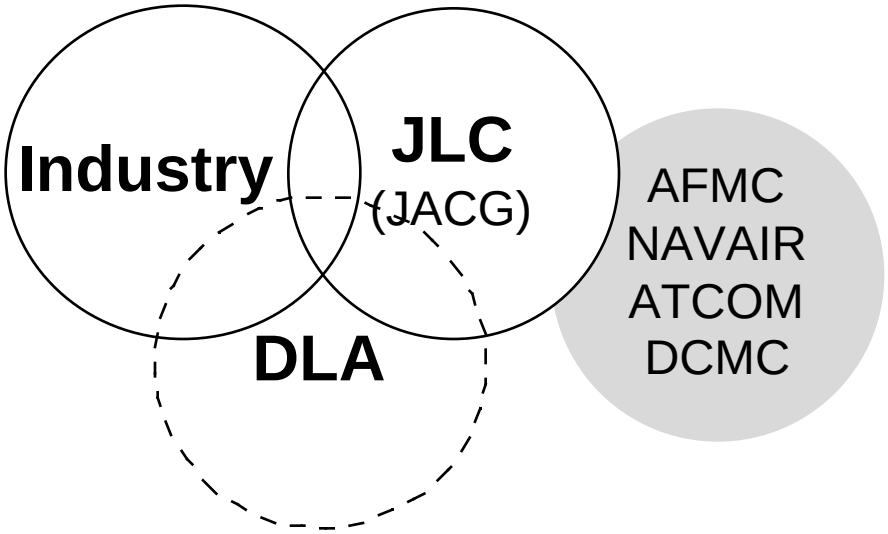
NGS-IPT

STATUS REPORT / HEADING CHECK to NARSOC



DR. JOHN C. HALPIN
CHIEF SYSTEMS ENGINEER
ENGINEERING DIRECTORATE
AERONAUTICAL SYSTEMS CENTER

13 Jul 1995

MR. JAMES M. SINNETT
SR. VICE PRESIDENT
McDONNELL DOUGLAS AEROSPACE

NGS-IPT VISION

The IPT will define a business environment which takes advantage of the efficiencies of commercial practices to improve our military acquisition environment. The environment allows suppliers to compete and be selected based upon their innovative designs and process excellence, and not government dictated practices, within the limits of the law.

- Chartered by AFMC CEO Council SEP 94
- Initiated Mar 95
- Initial Concepts Briefed to AFMC/CC 9 May 95

NGS-IPT - TEAM MEMBERS
for
CONCEPT DEFINITION PHASE

Government

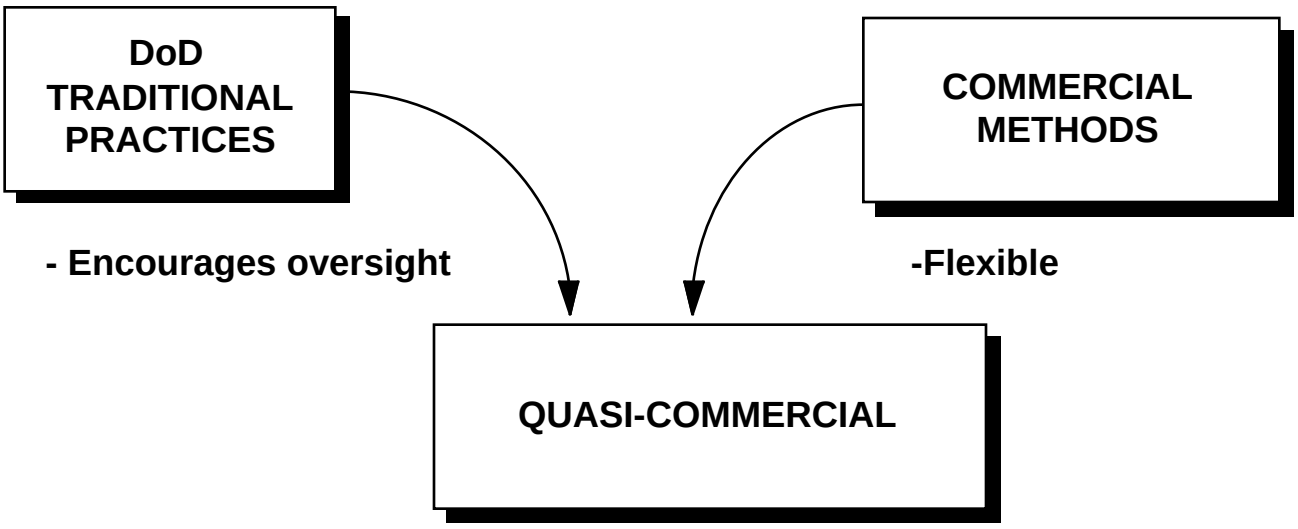
NAME	RANK	OFFICE SYMBOL
John Halpin	SES	ASC/EN
Roger Goodson	SES	NAVAIR (4.0D)
Dick Findley	SES	NAVAIR(4.10)
Tom House/Jim Ray	SES	ARMY:AMSAT/R-Z
Morris Goodrich	SES	OO-ALC/PK
Les Bordelon	SES	SMC/SD
R.J. McGlasson	GM-15	SPARWAR (PD72P)
Ed Kalapinski	GM-15	ESC/IA
John Traugott	COL	OC-ALC/LH
Jeffery Allen	GM-15	DCMC/AQC
Terry Little	GM-15	ASC/YU
Kathy Regan	GM-14	AFMC/PKP
Doug Campbell	GM-14	AFMC/JAS
Richard Boyer	GM-14	AFMC/DRI
Donald Lucht	GM-14	AFMC/LGPE
Norman Way	GM-14	NAVAIR
Grover Cleveland	GM-14	ASC/ENSI
Jim O'Connell	GM-15	ASC/ENSI

Industry

NAME	RANK	OFFICE SYMBOL
Jim Sinnett Co-Chair	VP	McDonnell Douglas
Joel Marsh	Dir	United Technologies
James Edwards	VP	Northrop-Grumman
Jim Horton	Dir	Texas Instruments
Harold Fogg	Mgr	GE Engines
Tony Gentile	VP	Coltec Ind
Jerry Norely	Dir	Motorola
Ralph Meoni	Dir	ITT
Frank Goodell	Dir	Boeing Def & Space
Emily Willey	Dir	Honeywell
Steven Kasper	Mgr	Hughes
Nick Kuzemka	Dir	Lockheed
Louis Basile	Ind Sec	McDonnell Douglas
ADVISORS		
Gordon Neary	Mgr	McDonnell Douglas
Malt Maltagliati	Mgr	AIA

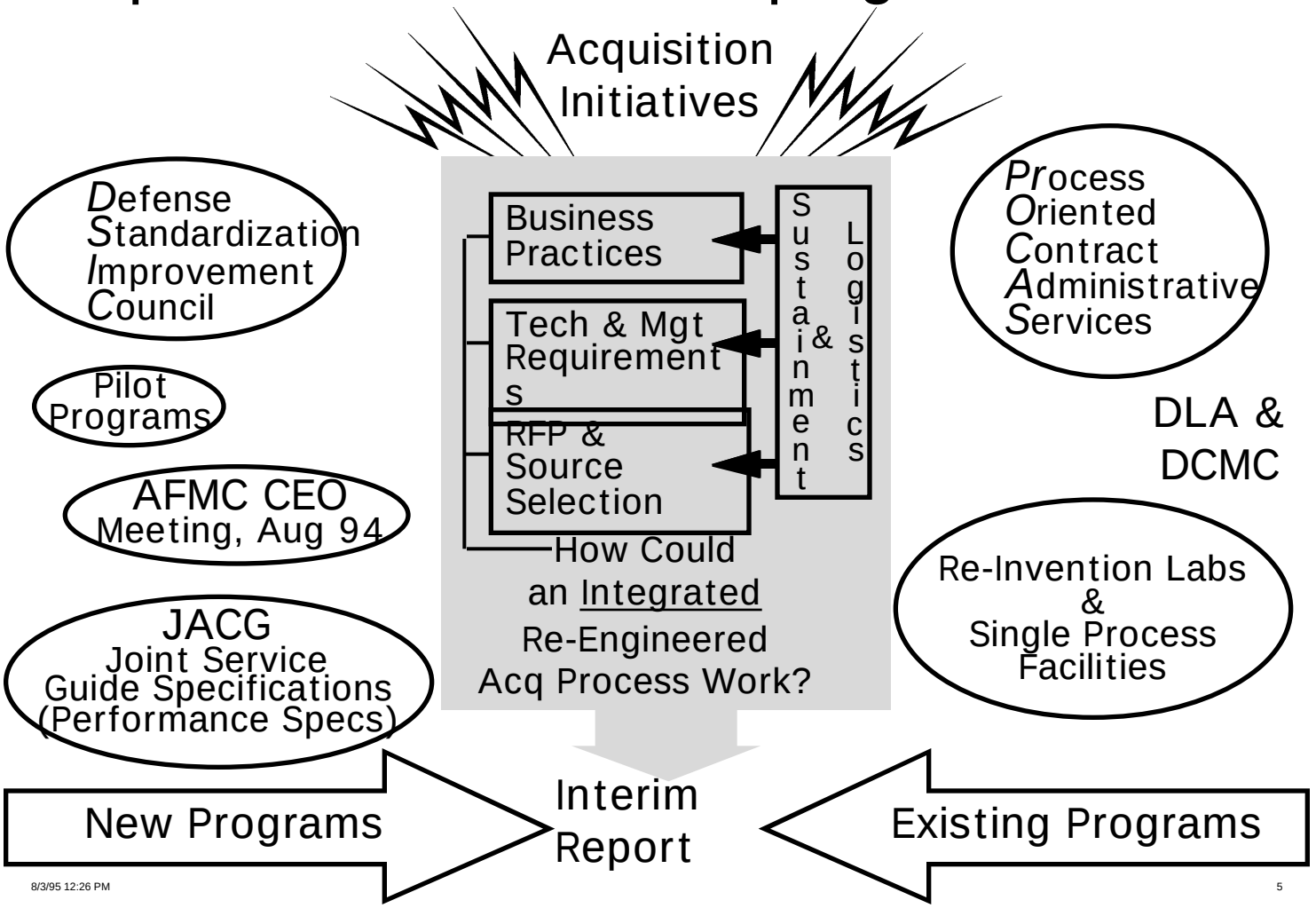
Membership expanding for detailed development.

THE GOAL: Derive a Best Practice Approach to Defense System Acquisition

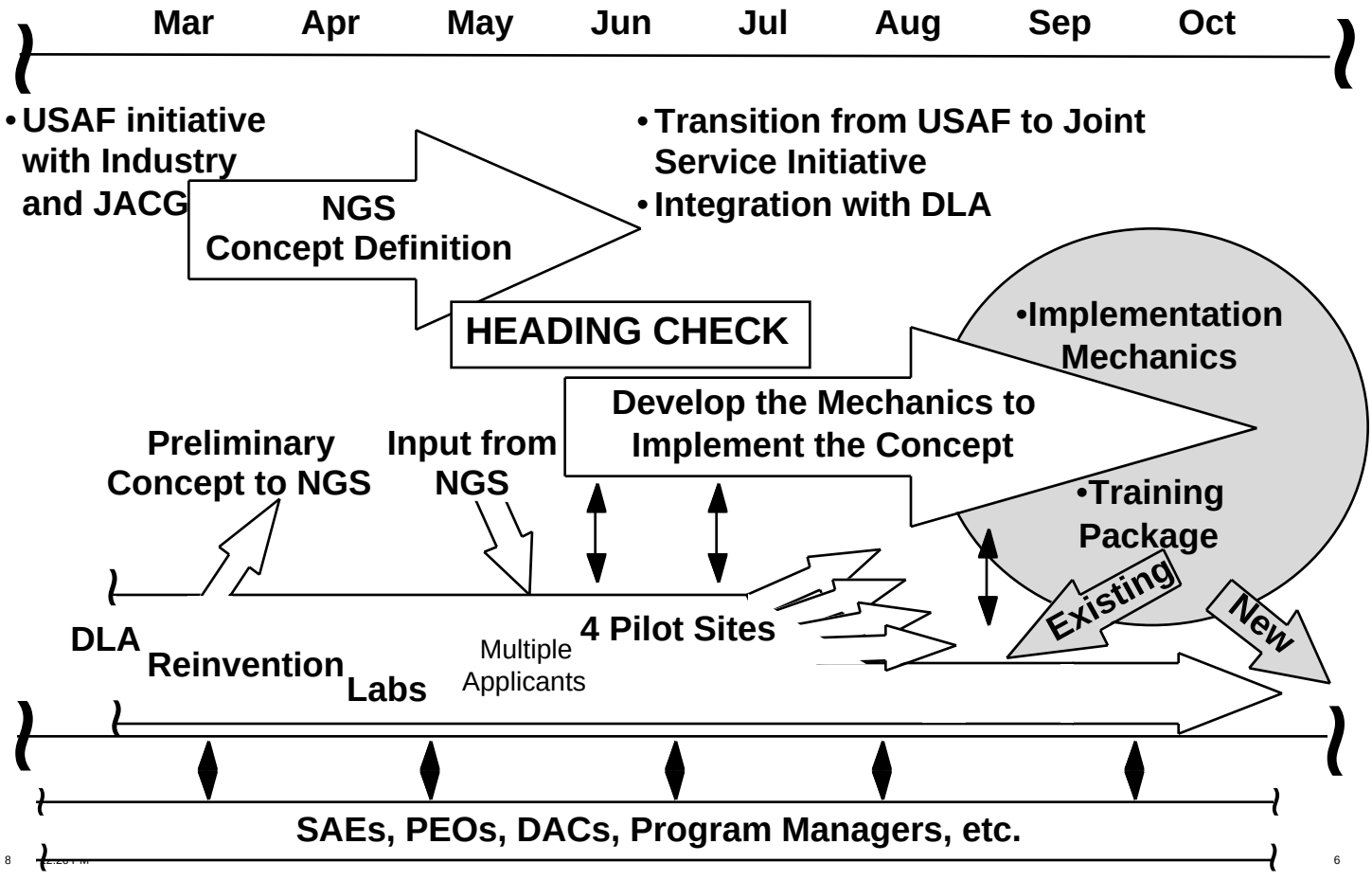


- Reduced cost / resources
- Enhanced cycle time
- Maintain or Improve Quality

Acquisition Reform: Shaping the NGS IPT



Development of an Integrated Re-Engineered Acq. Process



IPT Departure Point: Standards and Specifications

- **Three Classes of Standards**
  - **Interface Definition and Control**
  - **Materials and Processes (Mfg. oriented)**
  - **Standard Processes / Practices for Technical and Business Management. Examples:**
    - » **Software Development**
    - » **Systems Engineering**
    - » **Configuration Control**
    - » **Government Property Management**
    - » **CSCSC**
- **Product Peculiar Specifications**
  - **Systems / Design Requirements (F^3I Development Specs)**
  - **Product Description (Product Specs - Design Solutions)**
- **A Lot of Confusion**

IPT Departure Point: Standards and Specifications (cont'd)

- **The IPT Perspective**
  - **Interface Standards: Buyer's (Government's) Responsibility**
    - » **Use Commercial Standards as Appropriate**
  - **Materials and Process Standards:**
    - » **Industry Responsible for "How To"**
    - » **Some Industry Wide Standards May Be Useful (NGS) (Product Liability / "Build - to - Print")**
  - **Technical and Business Practice Standards:**
    - » **Industry Responsible for "How To"**
    - » **Government Responsible for "What Needs To Be Defined"**
    - » **NGS (Third Party) Not Appropriate (Ownership?)**
    - » **Transfer Ownership from Government to Industry for the "How To." Differences Between Companies Expected and Encouraged.**

Need Mechanism to Baseline / Evaluate Individual Industry Initiatives

Explored Possibility of an Enhanced Common Process Facility / Reinvention Laboratory Mechanism

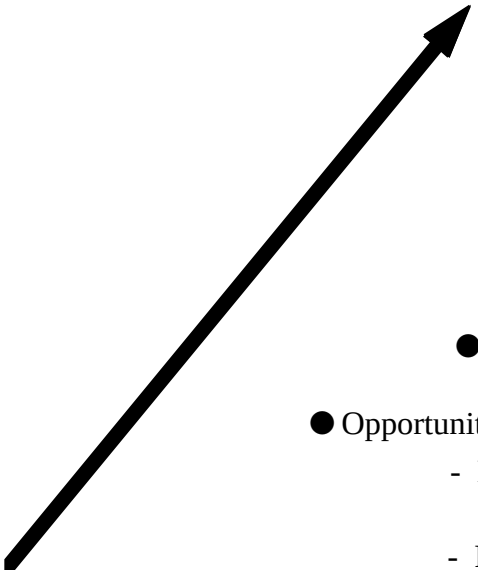
OUR PRODUCTS WILL:

- **Describe a process w/o MIL STDS or NGS that will reduce the manpower resources required to accomplish our acquisition responsibilities**
- **Benchmark industry's vendor rating system(s) and adopt best practices for use to assess our suppliers' capabilities - a process focus**
- **Mod existing contracts through the Common Process Facility initiative to accelerate implementation**
  - **new work only will be of limited effectiveness**
  - **few new starts: implementations must consider existing programs**
- **Support adjustment of oversight and award fees based upon contractors' capabilities and performance**
- **Facilitate reward of contractor efficiency and effectiveness through an enhanced:**
  - **past performance system to recognize supplier capability**
  - **source selection process**

OUR PRODUCTS WILL: (cont'd)

- **Implement a Performance-Based Technical Management Process (Form-Fit-Function-Interface: F^3I) with an expansion to assure data rights for minimum essential data packages to "privatize" and compete appropriate portions of the support work**
- **Appropriate checks and balance mechanisms to:**
  - **insure the output of the process proposed by the contractors**
  - **insure the effectiveness of the processes; and**
  - **incentivize "the contractors" process improvements through source selection**
- **Identify follow on activities to complete the tasking**
- **Address the following perspectives:**
  - **Government perceives that they are taking all of the risk**
  - **Industry perceives that the government is gaining all of the benefits**

An Implementation Strategy



- Gov't uses Past Performance, CPARs, etc.., to source new work based on contractor effectiveness and efficiency
- Industry uses Past Performance, Improved CPAR Data as feed back to assist in process improvement

● Government monitors; CPARS and ?

● Industry Implements

● Government Evaluation and Acceptance, as appropriate

INNOVATIONS ACCEPTED

● Opportunities:

- Now: Common Process Facilities
  (Rebaseline processes across program base in facility)
- Future: Aggressively seek new applications

● Industry prepares/proposes their processes metrics and controls

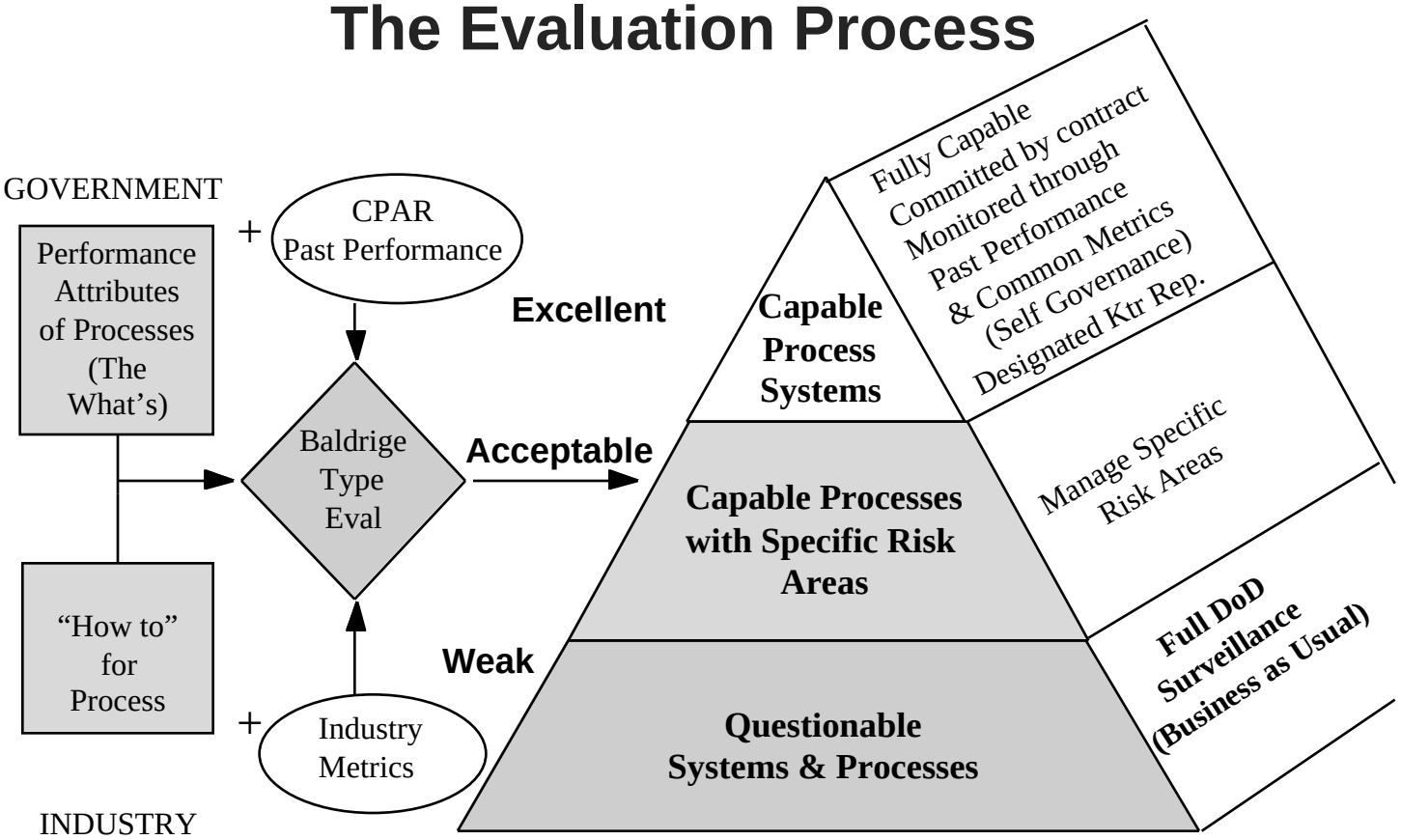
INDUSTRY'S INDIVIDUAL BEST PRACTICES/PROCESSES

● Restructure DOD's method for implementation of Technical Management requirements

Convert description "HOW TO" process standards to descriptive performance attributes "THE WHAT" for Risk Management

ENCOURAGE INNOVATION

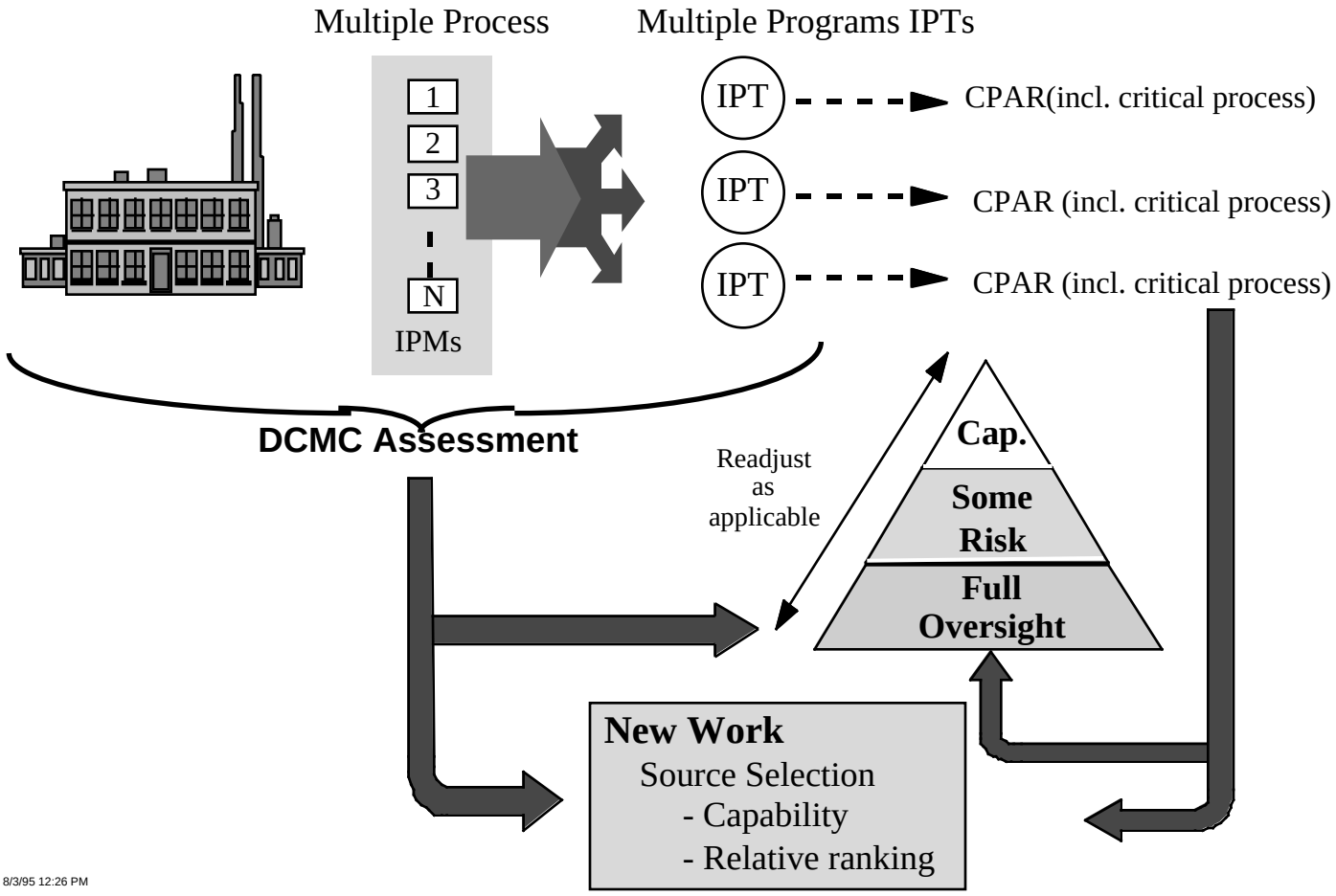
The Evaluation Process



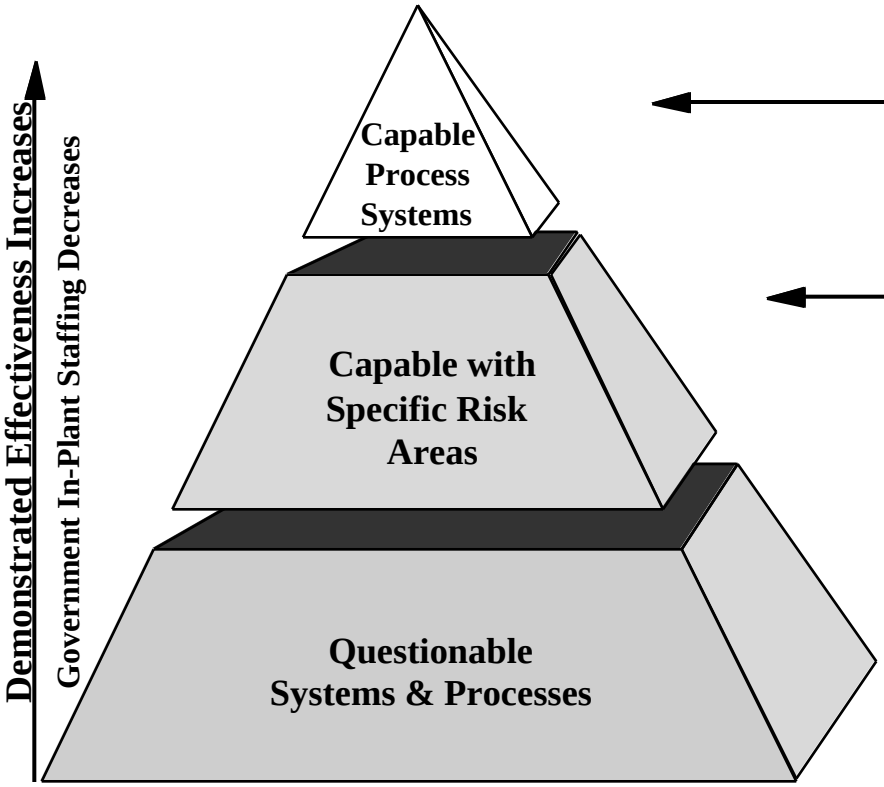
- Different levels of capability (CAUSE)
- Different levels of Risk Mgt and oversight
- Different Resource consumption (SPO size, DCMC manning, etc..)

Recognition of Process Efficiency & Effectiveness

• Common Facility/Multiple Programs



What Does Contractual Commitment Mean?



CITE:

- Process changes allowed but Government customer notified of changes
- Contractual agreement on specific process steps and identified risk areas...Gov't appv. reqd.
- Full oversight (business as usual). Detailed process commitments to specified requirements:

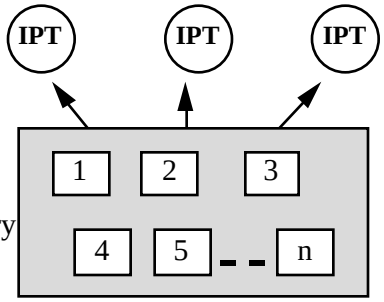
  Ex: - Systems Engr Spec
  - Software Dev Spec
  - Static Discharge
  - Soldering Spec

Government Needs Consistent Assessment Approach!

Implications of Integrated Product Development (IPD) and Integrated Process Mgt (IPM)

- **Common Process Facility**

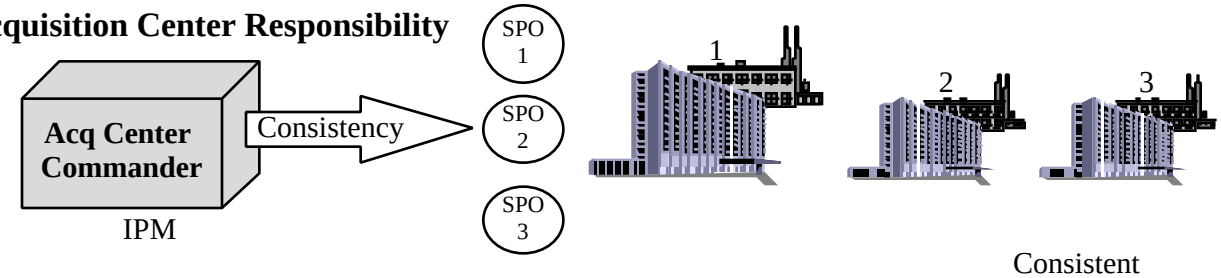
Several Programs:
IPD on each



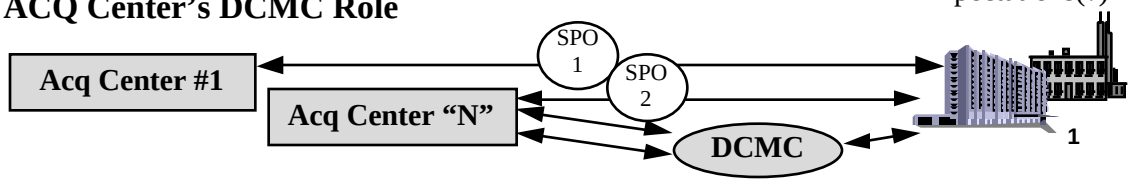
Multiple Processes:
Common/consistent application across military & commercial base

Integrated Process Managers (IPM)

- **Acquisition Center Responsibility**



- **Multiple ACQ Center's DCMC Role**



Consistent Expectations(?)

Examples of Some Candidate Technical Management & Business Processes

- **Systems Engineering** *(Needs, Requirements, Design, Verification and Controls (Software/Hardware))*
- **Configuration Management & Control**

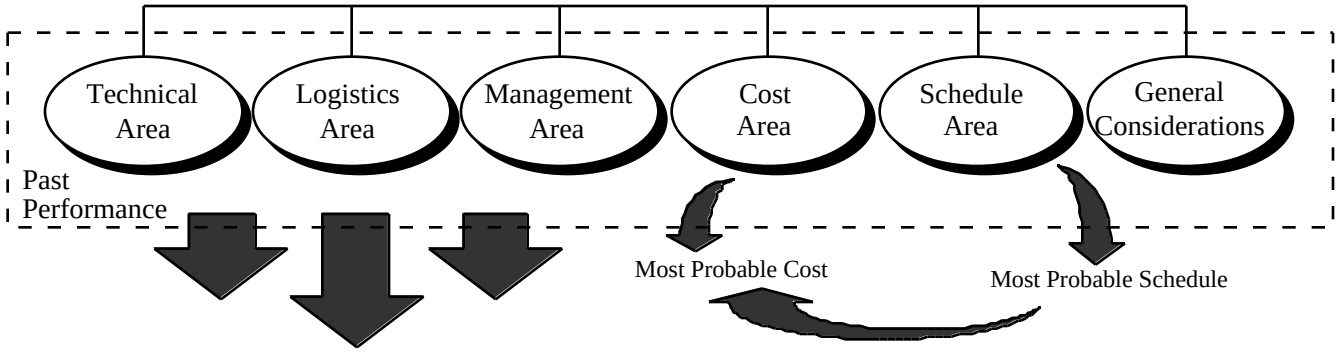
  (Software/Hardware)
- **Adv. Quality System (Industry/Mfg. assembly)**
  - **Object is to implement design**
  - **Key Characteristics**
  - **Implement AQS and phase out detailed M&P MIL process** *(Eliminates / Minimizes Traditional Mandatory Inspections)*
  - **MRB *(Defective Material Processing)***
- **Manufacturing Management**
- **Logistic Support / Sustainment**
- **Subcontractor Management**
- **--- etc.**

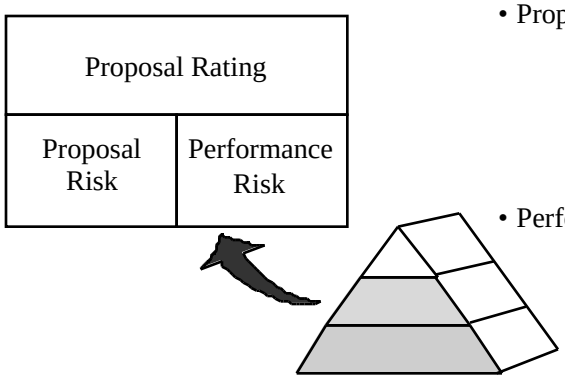
Increase Reliance on Past Performance

- **Move to a more commercial like source selection**
  - **High reliance on past performance**
  - **Use evidence of supplier capabilities**
- **Use Past Performance to:**
  - **Reduce level of technical evaluation required**
  - **Determine capability to perform**
  - **Determine relative ratings among competing firms**
  - **Make the decision (comparable to cost, schedule, technical)**
- **Current CPAR processes**
  - **Good start**
  - **Does not achieve goal**
  - **Joint service commitment**
- **Enhancement recommendations being developed**

Potential Approach to Proposal Evaluation

- **What is evaluated?**





- Proposal Risk
  - Technical concept
  - Proposed critical processes
  - Risk mitigation approach
  - Capability to perform (including past performance)

- Performance Risk
  - Past performance (specific to risk elements)
  - Supporting evidence of capability to perform (e.g.. common processes, evaluations, etc.)

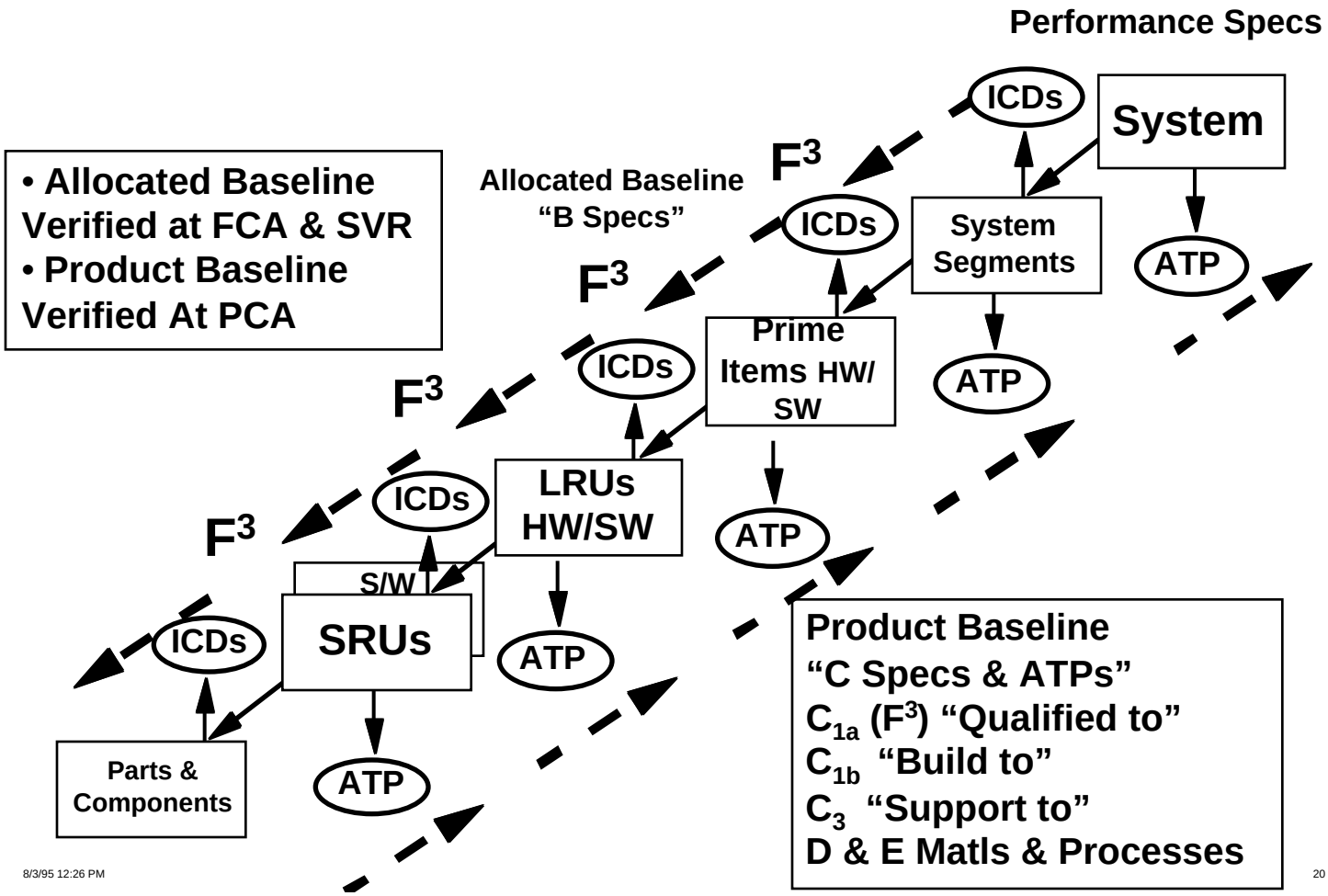
Performance Based Approach : F^3I for Systems Life Cycle Mgm't

- **Performance (Form, Fit, Function: F^3) Specifications and Interface Control Documents**
  - **Minimal reliance of MIL Specs and Standards**
  - **Not detail prescriptive process requirements or design solutions**

> **...Identify "WHAT"**
>
> **...Do not prescribe "HOW"**

- **Restructure DoD implementation of performance based technical management using an F^3I System (RFPs through sourcing of replenishment spares)**
- **FCA & PCA Criteria, Responsibilities & Products**

The Systems Configuration / Architecture



Sustainment and Data: Decision Options

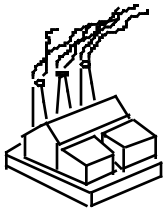
- "Design To Requirements" F^3I
- Acceptance Test Procedures (ATPs)

- F^3I
- ATPs
- Appropriate "Build To Data"

FCA & PCA Recommendations

Commercial Support

- Performance Specs
- Performance Incentives
- Warranties



Organic Support

- Manuals
- Test Sets
- Parts
- Training

- Configuration Control

Changing Technology

- Obsolescence
- Repair
- Change

Stable Technology

Commercial Support Offers a Solution for Rapidly Changing Technology

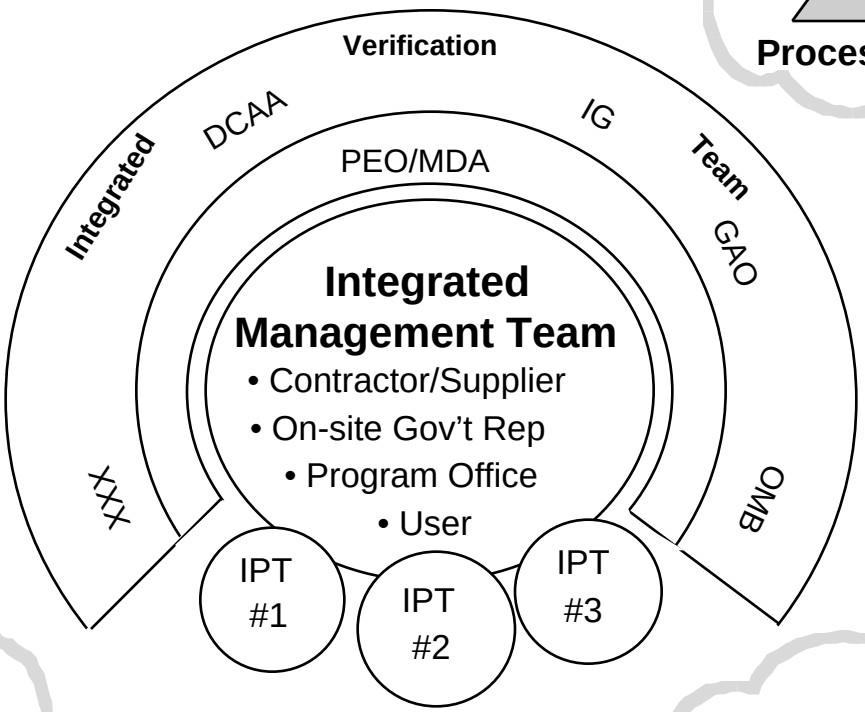
Business Practices

Challenges Identified:

- **“One page document” process to implement for existing programs (Block Change Process ?)**
- **Training of:**
  - **Industry Staffs**
  - **Government Program Office Staffs**
  - **Source Selection Officials**
- **Contractor Identification / Documentation of Key Processes / Metrics**
- **Contractor Liability -- Provisions for Warranty / Guarantee**
- **Acquisition Strategy Addressing Flexible Sustainment**

A New Vision of Trust

F³I



Process Metrics

Electronic Data Interchange

Support Strategy

Performance Based

RFP

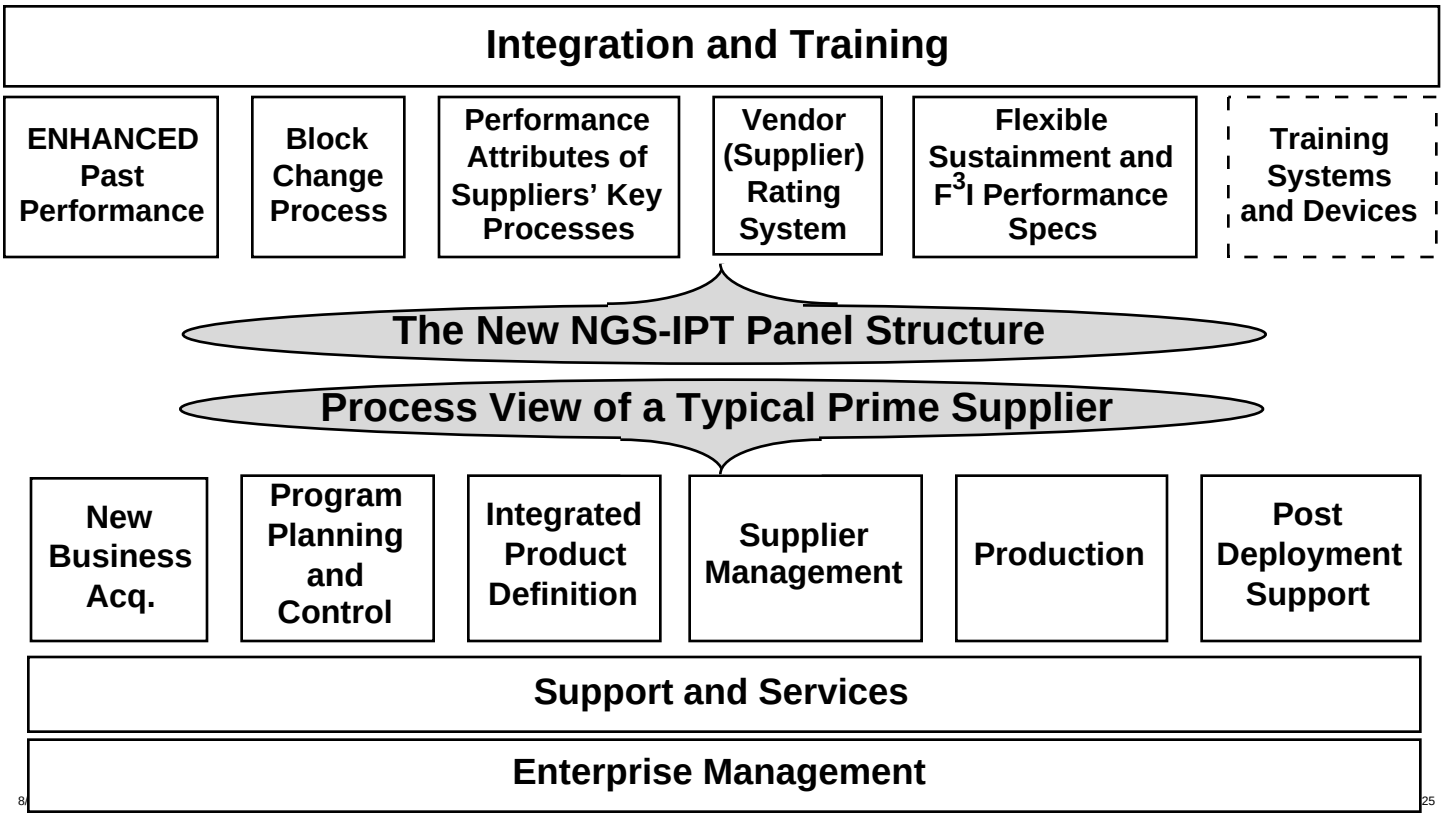
Insight not oversight

Progress To Date

- **AFMC/CC accepted report on 9 May 95**
- **AFMC/CC sponsored:**
  - ✓ **Update to Industry CEOs - 26 May 95**
  - ✓ **Briefing to JLC to endorse working through JACG - 16 Jun 95**
  - ✓ **Briefing through SAF/AQ to Defense Manufacturing Council - 10 Jul 95**
  - ✓ **Briefing to JACG Principles 12 Jul 95**
  - ⇨ – **Briefing to NARSOC 13 Jul 95**
- **Develop Tactical Implementation Plan**
  - ✓ **Briefed JLC - continuing to work w/DLA on common process facility**
  - ✓ **Use Aeronautical *Sector* as pioneer (Pilot)**
  - ✓ **Reorganized IPT to focus on implementation issues & solutions (Jun-Sep 95)**
  - ⇨ – **Execute implementation through JACG**

NGS-IPT Restructured to:

- **Transfer Process Ownership to Industry;**
- **Reinforce Integrated Product Development; and**
- **Develop Implementation Mechanics**



Current Status

- **Two topics requiring early attention:**
  - **Clear guidance for class changes to facilitate "Block Change" process for existing contracts within a common facility**
  - **Development and deployment of a Training Package to facilitate the transition into the new system**
    - » **Development (Resources and other training initiatives)**
    - » **Deployment (Just-in-time plus other / existing options)**
- **Scope has expanded to tri-service**
  - **Added training systems**
  - **Other?**
- **Integration with DLA being worked**

Plant/Company Wide Processes

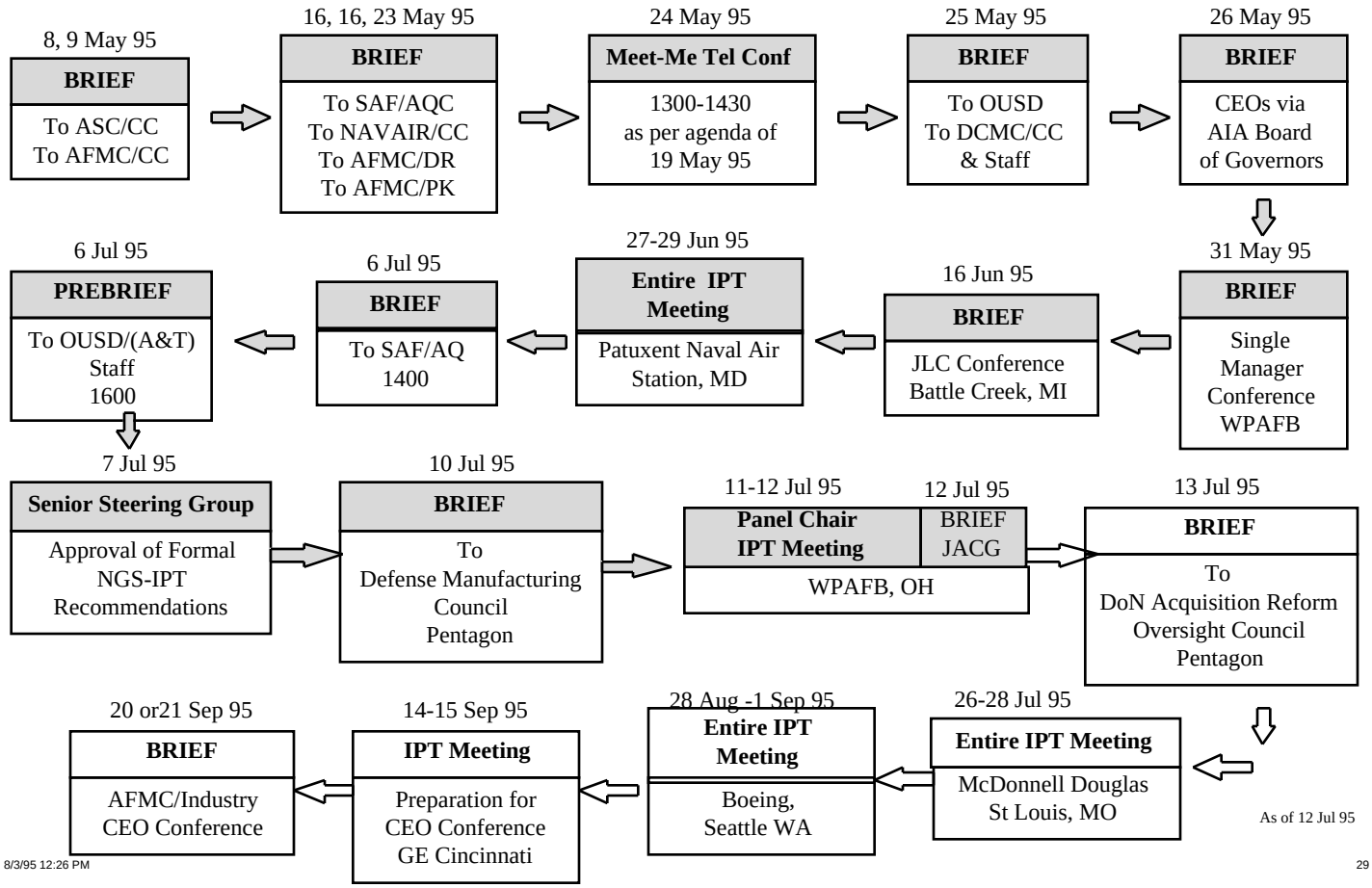
- **Potential for Efficiencies When an Industrial Site Can Use the Same Process for:**
  - **<u>All</u> DoD Contracts; and**
  - **Commercial Work**

- **Background**
  - **DLA Reinvention Laboratories; DCMC**
  - **Single Quality Process Facility; DTSE&E**
  - **Specific Sector "Commercial Practices" Initiatives:**
    - » ***Aircraft*: Lockheed Ft Worth Proposal to DoD**
    - » ***Flight Simulators and Training Equipment*: ASC with Industry**
    - » ***Jet Engines*: Defense Science Board Report with Action to the Joint Propulsion Coordination Committee (JPCC) of the JLC for Review**
    - » ***Helicopters*: MDA-Mesa Proposal to Army**
  - **ASC Presidents' Day, Nov 94 Discussions**

DEFENSE MANUFACTURING COUNCIL (DMC) EXECUTIVE COUNCIL MEETING

- **NGS status briefing - 10 July**
- **Results**
  - **Acceptance**
  - **Vigorous discussion**
  - **Need for coordinated DoD efforts**
    - » **Reinvention Lab**
    - » **Single quality process initiative**
    - » **Others**
  - **Training recognized as essential element**
- **Mr. Longuemare tasking**
  - **Need a usable product this fall (80% solution)**
  - **Tasked Mr. Mutzelberg to develop an approach for integration of initiative and requested NGS participation**

NGS-IPT Activities/Briefing Schedule



As of 12 Jul 95

ENHANCED Past Performance Subpanel

Product: Develop implementation plan and the mechanisms to expand use of past performance as discriminator in formal source selection.

- Government:
  - Cochair:
    Dick Findley NAVAIR
  - Capt Daniel Behne AFMC
  - Jim Boxx AMSAT-A-AE
  - Sid Pope DCMC
  - Joe Flaig NAVAIR
  - Don Lucht AFMC/LGPE
  - Terry Spencer AFMC/ENPI
  - Lt Col Frank Gorman AFMC
  - Melissa Rider SAF/AQCO
- Industry:
  - Cochair:
    Paul Graves Boeing
  - Dave Stone Hughes
  - Ralph Meoni ITT
  - Bob Voskamp McDonnell Douglas
  - Ralph Johnston McDonnell Douglas
  - Dick Hibma Rockwell Aircraft

Block Change Process Subpanel

Product: Develop procedure for implementing plant-wide change(s) to processes, converting from MILSTD to commercial/company/industry processes, across multiple contracts, for multiple DOD customers *and other applicable goverment agencies.*

- Government:
  - Cochair:

    Leantha Sumpter NAVAIR
  - Randy Britton AMSAT-A-TB
  - Kathy Thompson ASC/PKC
  - Rix Edwards DCMC Legal
  - TBD DCMC/AQC
  - Doug Campell AFMC/JAQ
  - Maj Dave McKinney AFMC/PKP
  - Mary Kay Fannerella NAVAIR
  - Sandra Selby NAVAIR
  - TBD 0USO (AR)
  - Tina Balard, DLA
- Industry:
  - Cochair:

    Nick Kuzemka Lockheed Martin
  - Chuck Cruit Rockwell
  - Dan Petru McDonnell Douglas
  - Larry Blair WEC
  - Jim Horton Texas Instruments
  - Joel Marsh United Technologies
  - Jack McCoy Northrop-Grumman
  - Pat Manix General Electric

Performance Attributes of Suppliers' Key Processes Subpanel

Product: Determine specific performance attributes and candidate metrics of suppliers' key processes.

- Government:
  - Cochair:

Gary Adams	ASC/ENSI
  - Ann Marie Burns — ASC/ENSI
  - Kathy Regan — AFMC/PK
  - Chuck Triska — AF/TEP
  - Will Urschel — AFMC/ENPI
  - Jim Bauer — DCMC
  - Jesse McCurdy — USN
  - Tom Hall — USN
  - Tim Hughes — AMSAT
  - Malinda B. Goforth — ASC/ENSD
  - Howard Miller — NAVAIR
  - Sandra Selby — NAVAIR
  - Member, TBD, OUSD/A&T
  - Support Members:
    - Mark Wilson — ASC/ENF
    - Craig Wall — ASC/ENA
    - Tom Bernard — ASC/ENSC
    - George Thielen — ASC/AZ
- Industry:
  - Cochair:

Keith Adrien	GE
  - Dick Hickok — GE
  - John Fialko — Hughes
  - Owen Carson — McDonnell Douglas
  - Rob Lacalli — Boeing
  - Bill Jascomb — LMAS
  - Richard Ullman — ITT
  - TBD — NG

Vendor (Supplier) Rating Systems Subpanel

Product: Develop a prime contractor capability assessment system to be used by DoD Programs by benchmarking the best of class vendor rating systems.

- Government:
  - Cochair:

    Morris Goodrich — OO-ALC/PK
  - Charles Hooper — ASC/ENS
  - Col Gary Zura — AFMC/PK
  - Don Doll — AMSAT-R-EB
  - Vern McKamey — OUSD(AT)/DP/DSP
  - Bob Tourville — NAVAIR
  - B.P. Smith — AFMC/ENPI
  - Sid Pope — DCMC
- Industry:
  - Cochair:

    Jim Edwards — Northrop-Grumman
  - Jerry Braga — Northrop-Grumman
  - Greg Carter — Northrop-Grumman
  - Bill Lewanowski — AIA
  - Dave Scott — Lockheed Martin
  - TBD — Texas Instruments
  - TBD — McDonnell Douglas

Flexible Sustainment and F^{3}I Performance Specs Subpanel

Product: Build a tactical implementation plan including acquisition strategy options for flexible sustainment using F^{3}I specs in a NGS environment.

- Government:
  - Cochair:
    Capt Bruce Hawk NAVAIR
  - Col John Traugott OC-ALC/LH
  - Dr Tom House ATCOM
  - Jim Ray ATCOM
  - John Over AFMC/ENP
  - Col Lee Cox ASC/SDL
- Industry:
  - Cochair:
    Frank Goodell Boeing
  - Steve Kaspar Hughes
  - Steve Bray Raytheon
  - Devon Smith Lockheed Martin
  - William Halpen Pratt & Whitney
  - Joe Warner General Dynamics

Integration and Training Panel

Product: Integrate effort of other panels into a consistent acquisition approach and develop accompaning training modules.

- **Government:**
  - Cochair:
    John Halpin ASC/EN
  - Les Bordelon SMC/SD
  - Roger Goodson NAVAIR/4.0D
  - Jeff Allan DCMC/AQCOF
  - Vern Menker AFMC/ENPI
  - Jim O'Connell ASC/ENSI
  - John Kordik ASC/ENSI
  - Grover Cleveland ASC/ENSI
- **Industry :**
  - Cochair:
    Jim Sinnett McDonnell Douglas
  - Gordon Neary McDonnell Douglas
  - Lou Basile McDonnell Douglas

- **Training requirements subpanel**
  - –Tom Hoog, Cochair ASC/ENSS - Rod Lester McDonnell Douglas
  - –Bob Deem ASC/ENSI
  - –Maj Warren Anderson AFMC/ENPI
  - –Richard Boyer AFMC/DRI
  - –Tom Eden NAVAIR/5.3T
  - –Don Holz STRICOM
  - –Diane Moss NAWC-TSD

Recommendation

- **Defense Manufacturing Council Endorsement of IPT Interim Findings (Concept Definition for Integrated, Re-Engineered Acquisition Process) and Sponsorship Across the DoD**